

UNIVERSITY OF CAPE COAST

**THE EFFECTS OF MINING ACTIVITIES ON THE SCHOOLING OF
INDIGENOUS YOUTH AND THE CORPORATE SOCIAL
RESPONSIBILITY OF MINING COMPANIES IN TARKWA**

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2012

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INDIGENOUS YOUTH AND THE CORPORATE SOCIAL RESPONSIBILITY
OF MINING COMPANIES IN TARKWA

BY

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DISSERTATION SUBMITTED TO THE INSTITUTE FOR DEVELOPMENT
STUDIES OF THE FACULTY OF SOCIAL SCIENCES, UNIVERSITY OF
CAPE COAST IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR
AWARD OF MASTER OF ARTS DEGREE IN HUMAN RESOURCE
DEVELOPMENT

JULY 2012

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Name: Anthony Kwaku Addae Rocqueson

Signature:.....

Date:.....

Supervisor's Declaration

I hereby declare that the preparation and presentation of this dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Name: Dr. Owusu Boampong

Signature:.....

Date:.....

ABSTRACT

The study is about the educational background of the indigenes of Wassa West District and their employability at the mines. Most of the indigenes in the district are not gainfully employed. They are neither engaged in farming nor formal mining which are the main sources of income in the area. They rather resort to *galamsey* and pay little attention to schooling. There are occasions when the mines express the desire to recruit the indigenes as a compensation for exploiting their natural resources, but they are often constrained by the inadequacy of the skills of the indigenes.

This research therefore, uses interviews and questionnaires to investigate the problems that militate against effective Human Resource Development of the indigenes. 23 Basic Schools were purposively sampled from 75, two Senior High Schools from five, and 17 *galamsey* units were selected for the research. Questionnaires about indigenes and interviews were administered to some teachers of the selected schools. Similar questionnaires and interviews were administered to *Galamsey* operators.

The findings indicate that most of the indigenes prefer working at small scale mining and *Galamsey* sites rather than schooling. It is recommended that apart from the educational infrastructure which is provided by the Mining Companies, they should also provide scholarship schemes to entice the residents of the communities to patronise schooling.

ACKNOWLEDGEMENTS

No research can be made without relying on the efforts, sacrifices, and knowledge of other people and this study is not an exception.

I do acknowledge the efforts and tolerance of my research supervisor, Dr. Owusu Boampong, who took over after a number of years when supervision came to a halt. I am obliged to express my heart-felt gratitude to him.

My better half, Mrs. Dora Rocqueson and my children in various ways made sacrifices when I had to spend huge sums of money to finance this sandwich programme. Needless to mention my son, Emil Agyei Addae who sacrificed by differing his entry into the University the very year I gained admission for the Master of Arts Degree. References were made to publications and other documents which were written by various authors. Their works are duly acknowledged.

Finally, to all and sundry whose actions or inactions, directly and indirectly contributed to the successful accomplishment of this dissertation, I do express and will continue to show gratitude and gratefulness to them.

DEDICATION

To my brother Anthony Amoatwo and my family

TABLE OF CONTENTS

| Content | Page |
|--|------|
| DECLARATION | ii |
| ABSTRACT | iii |
| ACKNOWLEDGEMENTS | iv |
| DEDICATION | v |
| TABLE OF CONTENTS | vi |
| LIST OF TABLES | ix |
| LIST OF FIGURES | xi |
| LIST OF PLATES | xii |
| | |
| CHAPTER ONE: INTRODUCTION | 1 |
| Introduction | 1 |
| Problem statement | 1 |
| Objectives of the study | 2 |
| Research questions | 3 |
| Scope and limitations | 4 |
| Organisation of the study | 4 |
| | |
| CHAPTER TWO: REVIEW OF LITERATURE | 5 |
| Introduction | 5 |
| Social responsibilities of business of organisations | 5 |
| Job specification and job description | 9 |

| | |
|---|----|
| Government policy on employment as a limiting factor | 10 |
| Effects of mining activities on environment and corporate social responsibility implications | 10 |
| Socio-economic costs | 12 |
| Land damage and water pollution | 13 |
| Major subsidence | 14 |
| Human capital development | 14 |
| | |
| CHAPTER THREE: METHODOLOGY | 19 |
| Introduction | 19 |
| The study area | 19 |
| National educational institutions in the study district | 21 |
| Economic Activities | 22 |
| Study design | 22 |
| Sample size | 23 |
| Data collection methods | 25 |
| Instrumentation | 26 |
| Data presentation and analysis | 27 |
| | |
| CHAPTER FOUR: RESULTS AND DISCUSSION | 28 |
| Introduction | 28 |
| Indigenes in the basic school | 29 |
| Indigenes of school going age involved in galamsey operation – Tarkwa | 34 |

| | |
|--|----|
| Indigenes in the Senior High schools | 37 |
| Examination results in selected Junior Secondary schools | 39 |
| Indigenes in the University of Mines and Technology | 42 |
| Sponsorship of indigenes in Tertiary Institutions – A social responsibility | 47 |
| Mode of selection | 47 |
| Educational infrastructure – A corporate social responsibility | 49 |
| | |
| CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS | 53 |
| Introduction | 53 |
| Recommendations | 56 |
| REFERENCES | 61 |
| APPENDICES | 60 |
| A. Letter of introduction from the office of Ghana Education Office | 64 |
| B. Tables – details of enrolments | 65 |
| C. Questionnaire for officials of Ghana Education Service District Office, Tarkwa | 76 |
| D. Questionnaire for galamsey operators in Tarkwa | 79 |
| E. Plates | 82 |
| F. Western University College, Tarkwa Employment opportunity | 87 |

LIST OF TABLES

| Table | Page |
|--|------|
| 1 Annual basic salary in public universities (2006) | 16 |
| 2 The sample population | 24 |
| 3 Distribution of indigenes/migrants in selected primary schools in Tarkwa | 30 |
| 4 Distribution of indigenes/migrants in selected junior secondary schools in Tarkwa | 31 |
| 5 Distribution of indigenes/migrants in selected Primary Schools in the Hinterland. | 32 |
| 6 Distribution of indigenes/migrants in Selection Junior Secondary Schools in the Hinterland | 33 |
| 7 Indigenes of school going age in galamsey operation – Tarkwa | 35 |
| 8 Indigenes of school going age in galamsey operation – Awudua | 36 |
| 9 Distribution of indigenes enrolment in the selected Senior High Schools in Tarkwa | 38 |
| 10 BECE results – selected JHS in Tarkwa 2003/2004 | 39 |
| 11 BECE results – selected JHS in Tarkwa 2004/2005 | 40 |
| 12 BECE results – selected JHS in the Hinterland 2003/2004 | 40 |
| 13 BECE results – selected JHS in the Hinterland 2004/2005 | 41 |
| 14 University of Mines and Technology, Department of Mining Engineering | 43 |
| 15 University of Mines and Technology, Department of | |

| | |
|--|----|
| Geological Engineering | 44 |
| 16 University of Mines and Technology, Department of Geomatic Engineering | 44 |
| 17 University of Mines and Technology, Department of Mineral Engineering | 45 |
| 18 University of Mines and Technology, Department of Mechanical Engineering | 45 |
| 19 University of Mines and Technology, Department of Electrical Engineering | 46 |
| 20 Indigenous students in apprenticeship training programme | 48 |

LIST OF FIGURES

| Figure | Page |
|--|------|
| 1 Map of Wassa West District | 20 |
| 2 Distribution of indigenes and migrants in UMaT, 2006 | 46 |

LIST OF PLATES

| Plate | Page |
|---|------|
| 1 Abekoase, Tebe Early Childhood Development Centre | 50 |
| 2 Store room/kitchen Abekoase and Tebe Early Childhood Development Centre | 51 |
| 3 Teachers' residence - Huniso Methodist Primary and JSS | 52 |
| 4 Landscape after galamsey activities | 82 |
| 5 Galamsey workers at site | 83 |
| 6 Awudua Methodist Junior Secondary School. – Goldfields Ghana Ltd. | 84 |
| 7 Huniso Early Childhood Development Centre (Primary School) – Constructed by Goldfields Ghana Ltd. | 84 |
| 8 Sign board | 85 |
| 9 Sign board | 85 |
| 10 Lavatory, Abekoase at Tebe Early Childhood Development Centre | 86 |
| 11 Urinal, Abekoase and Tebe Early Childhood Development Centre | 86 |

CHAPTER ONE

INTRODUCTION

Introduction

Most of the indigenous youth in Wassa West District, especially in the areas where this research was conducted are not gainfully employed. Farming activities have been neglected, especially by the indigenous people. The youth of Tarkwa apparently prefer to earn quick income at tender age instead of going to school. They are mostly engaged in small-scale mining activities at the expense of formal schooling, which is the surest prerequisite for achieving sustainable livelihood.

It appears that the main reasons for their involvement in the small-scale mining are that they are unskilled and illiterate. Their plight is worsened by unavailability of land, which they could have used for farming, because most of the land has been destroyed by extensive surface mining operations.

Problem statement

Since the passing of PNDC Law 153 in 1986, the Ghanaian surface mining scene has witnessed a new boom. A large amount of capital had been channelled into the mining sector in Ghana and new technologies have been introduced. The result is the mining of lower grades of ore which hitherto was considered waste. Before 1986, most of the mining was done underground but the new technology has led to the development of large surface mining and the

introduction of the heap-leach technology to process the low grade gold ores. This is a specialised type of gold processing for which expert knowledge is required of the metallurgical and mineral processor. Surface mining requires knowledge about slope stability, ground water levels and rock mechanics, which are the preserves of the Civil and Mining Engineers. Mining in recent times has become so sophisticated that it requires high-level of education and skills for its operations, but the level of education and literacy of most of the indigenous youth of Tarkwa are low. As a consequence these youths are not employable in the mining companies. The mining companies depend on expatriate miners and the use of other highly skilled workers (Dzigbodi-Adjimah, 2006).

In a situation where companies have the desire to recruit indigenous youth as workers, the inadequacy of their education makes it difficult for the companies to engage them. This, together with the scarcity of arable land, leaves the fate of the indigenous youth to the uncertainties in the general labour market in Wassa West District.

This research therefore seeks to probe into the problems that militate against effective human resource development of the indigenous youth of Wassa West District, and to suggest alternative approach to the solution of the youth unemployment in the district.

Objectives of the study

The general objective of the study is to examine how the activities of mining companies and *galamsey* operators can improve the livelihood of the indigenous people of Tarkwa.

The specific objectives of the research are to:

- Identify the extent to which the mining companies compensate the indigenous people for the use of their land;
- Examine the various sponsorship packages offered by the mines to the indigenous people in educational institutions in the district;
- Determine the proportion of Wassa indigenous youth in Basic and Senior Secondary Schools, and the University of Mines and Technology, Tarkwa;
- Ascertain the attitudes, perceptions and aspirations of the youth themselves with regard to education and skills acquisition for employment;
- Make recommendations as to how the mining companies can make the indigenous people employable to improve their economic well-being.

Research questions

The research questions are:

- In what ways can the activities of the mines improve the livelihood of the indigenes of the research areas?
- Whether or not the compensation from the mining companies focus on the human resource development of the youth.
- To what extent do the companies by themselves take care of the human capital development of the indigenes as a social responsibility?
- To what extent are the youth from the research areas able to continue their formal education?

Scope and limitations

The study is focused on the schooling of indigenous youth of Wassa West. Data was collected in the tertiary institution in the area on indigenous people and in the other educational institutions. With the Senior Secondary Schools and Basic Schools data was collected on the enrolment of indigenous pupils.

Owing to financial resources and time constraints, the sample population was limited to 23 Basic Schools in Tarkwa, two Senior Secondary Schools in Tarkwa and the only tertiary institution in the district. The study did not go beyond Tarkwa and its suburbs (the research area) even though there are other mining companies and secondary schools in places like Bogoso, Huni Valley and Prestea.

Organisation of the study

The study is organised under five chapters. Chapter One covers the introduction. This consists of statement of the problem, objectives, research questions, scope and limitations, and the organisation of the study. Chapter Two is devoted to the review of literature on mining activities, and the effect of mining on the environment. The literature review specifically covers the concept and practice of the responsibilities business organisations owe to the society in which they operate, with emphasis on Human Capital Development. Chapter Three describes the methods used to collect, analyse and interpret data from the samples of the population identified for the purpose. Chapter Four discusses the results of the collected data. Finally, Chapter Five has the summary, conclusions and recommendations.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

For the purpose of the study, this chapter reviews related literature in respect of the following:

- Social responsibilities of business organisations to the communities in which they operate;
- The effect of mining activities on the environment;
- Human capital development criteria, processes and outcomes.

The purpose of the discussion is to bring into focus what the mining companies can do to assist the indigenes to obtain formal education to make them employable in the mining companies or elsewhere.

Social responsibilities of business organisations

Tate et al. (1983, p21), define social responsibilities of business entrepreneurship as “a means by which business can relate to the socio-cultural environment. It is thus the obligation of businesses to carry out socially approved missions, be responsive to, be congruent with, and interact and live with the forces and demands of the social and cultural environment in which they operate”.

The authors continue to state that social responsibility demands that the entrepreneur should be held accountable for his actions that affect people, the community and the environment. It, therefore, implies that the entrepreneur should be held responsible for his actions to his various publics, over and above legal and contractual requirements. Some entrepreneurs are still of the view that the sole function of business is to earn profit; others adopt the philosophy that business exists for the betterment of mankind. But between these two extremes is a wide range of responsibilities to which the entrepreneur should be held accountable. The following responsibilities are not exhaustive but they do suggest the direction in which modern thought on this question is moving. These include:

- Responsibilities to the community;
- Responsibilities to the employees;
- Responsibilities to shareholders;
- Responsibilities to customers/clients;
- Responsibilities to suppliers.

For the purpose of this dissertation only items i and ii are discussed.

Responsibility to community

Ethically as companies live with the communities they are expected to be good corporate citizens. It must be able to control pollution, noise and odour. It must also provide financial assistance to charities, sports and community activities. For instance Guahyia-Ababio (2004: 1), states that “Corporate Social Responsibility is not extended to the nation as a whole, but to the very people and area whose lands are being exploited for the benefit of

the nation. There is no doubt that it is the local people who bear the brunt of all the degradation of the environment that comes with mining operations”. According to Ababio (2004), the company must fully co-operate with government authorities in identifying and preventing health hazards in the products they sell or produce. The business must uphold the social and ethical values of the community and must prove to be a good citizen by responding constructively to genuine complaints from the people. The company, as a corporate body, is artificially created to stay within and with a community. Therefore the relationship between company and community should be symbiotic. The community on one hand offers people for employment, and a congenial environment for company’s conducive existence. The company, on the other hand, may decide to help the youth to obtain formal education to fit them into the labour market and/or help provide recreational facilities, etc. for physical well-being. Hence the development of a company and community is dependent on the sort of synergy that is created by both entities.

Ezan (2004, p1) refers to the definition of Corporate Social Responsibility by Lord Holme and Richard Watts in their publication as:

“the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large”.

Ezan (2004) asserts that corporate social responsibility includes activities that enhance capacity building for sustainable livelihoods, respect for cultural differences, and building skills of the employees, the community, and supporting good governance. In essence, social responsibility is about

focusing on operating the core business (e.g. mining) in a socially responsible way.

According to Guahyia-Ababio (2004) the objective of the corporate social responsibility of a mining concern should be to ensure that the adverse effects of mining on the workers and inhabitants of the community at large, are reduced to the barest minimum, if not completely removed, and that corporate social responsibility of mining companies may include (but not restricted to) infrastructural development such as schools, hospitals/clinics, water schemes, electricity, aquaculture, support for small-scale enterprises such as *batik tie and dye* production, crop cultivation, animal rearing, etc. AngloGold Ashanti (Iduapiem Mine), for example, extends social responsibility to training of staff, malaria control, etc.

Responsibility to employees

The company's responsibility to a worker is always immediate, direct and consequential because the worker's life is entwined with the employment. It is important that companies realise that formulating policies that favourably affect the lives of the workers is paramount since they are custodians of the existence of the company. Insofar as it is possible, the company ought to be clearly aware of the physical, psychological and social implications of human resource management and development policy. That is, human relations ought to be an important aspect of managerial responsibility. In that respect, the company has a duty to provide good working conditions, respect employees' worth and dignity and have regard for employees' health and safety (Gunhyia Ababio, 2004:3).

Companies should also try as much as possible to consider the employment demands of the community in which they operate as an aspect of their social responsibility. If companies do not develop the indigenous people but would like to recruit them as a compensation for their loss of job in agriculture, the indigenous people may not meet the requirement of the organisations. It will be useful therefore, for companies to provide basic training for the youth in their communities to make them employable rather than just offering them menial jobs as compensation for the loss of their agricultural lands.

According to Higgins (1996:359) employment of indigenous people into business enterprises operating in their communities (mining companies for example) may be hampered by the following:

- Job specification and job description;
- Government policies and minimum wage.

These points are briefly examined in the following sections.

Job specification and job description

Job description and job specification are determinants for all recruitment processes. Normally the company advertises the job, contacts applicants and a preliminary screening process is done. This usually disqualifies some applicants because they may not immediately meet certain skill requirements for particular jobs. In line with the above assertion by Higgins, it may be difficult for a mining company which wants to satisfy the employment needs of the community in which it operates to get the indigenous people employed.

Government policy on employment as a limiting factor

Government policies and labour market conditions on employment and wages also influence the ability of companies to accomplish their desire to satisfy the employment demands of communities. A company that is interested in recruiting from the community may face problems of policies emanating from the government. For example, legislation on minimum wage and pension schemes may cause companies to limit the number of employees, and resort to the services of contractors who may not be obliged to recruit from the community.

Effects of mining activities on environment and corporate social responsibility implications

Mining activities create wealth. People who live in mining areas mostly take to mining in lieu of agriculture. In pursuit of this aim, however, the environment is adversely affected. The forest cover must be removed before the mineral deposits can be obtained. Mireku-Gyimah (2001) likens mining to the Akan mythical bird, “Santrofié Anoma”, which if you come across, and take it home, you will be inflicted with grave misfortunes, but if you do not take it home, you would lose great fortunes.

Mining, by this analogy, is like catching the bird and sending it home. The misfortunes associated with engaging in this activity are the devastating effects on the environment. Leaving the land alone is like foregoing the mineral wealth within the land and losing great fortunes. In effect, mining cannot be done without causing harm to the environment especially the forest

cover. If the method is surface mining, the effects are worse because it involves:

- Clearing an area of land until the barren rock is reached. The top soil which is useful for agricultural purposes is therefore removed.
- Heap-leach pads and waste dumps destroy prime land which can not be used for any other purpose.
- Destruction of farms and economic trees.
- Relocation of towns, villages and dislocation of people; and
- Pollution of water bodies (Down and Stock 1977 p. 124).

Based on these factors Al-Hassan (1997) writes: “The economic benefits and the environmental degradation constitute an economic controversy”. Down and Stock (1977:124) in a commentary on Agricola (1556) “the father of economic geology” indicated an early piece of Italian legislation which forbade metal mining in fertile fields, vineyards and olive groves. They claim that although the detrimental impacts of mining upon the land, air and water had been a topic of concern for many years, it is only in the present century that the problems have become so acute that remedial measures have been instituted on large scale worldwide. The reason for this intensification of the nuisances is the increased quantities of mineral products required for societal consumption. This demand can only be met by dramatic technological developments that will enable new and less accessible resources to be won at less cost to the environment (Down & Stock, 1977:127).

Down & Stock (1977) referred to the world’s first mineral deposit textbook ‘De Re Metallica’, by Agricola (1556) as having described the destruction caused by mining in Germany in his days in these words “the

fields are devastated by mining operations ... The woods and groves are cut down, for there is need of an endless amount of wood for timbers, machines and smelting metals. And when the woods and groves are felled, they exterminate the beasts and birds, very many of which furnish a pleasant and agreeable food for man. Further, when the ores are washed, the water which has been used poisons the brooks and streams, and either destroys the fish or drives them away ...” (P.125). This is why some experts assert that there are greater detrimental environmental effects from mining than the value of the metals. There is much wealth in mining, but the aftermath of mining has much more adverse repercussions on the welfare of humanity, or precisely the neighbouring communities.

Even though there are hazards from mining activities, the accumulated wealth from mining can also be used for health delivery to the community. This notwithstanding, people within the community are prone to different kinds of diseases. The employees of the mining companies are even more prone to ailments than non-workers living within the community. These ailments are caused by chemical contacts with the skin or body of the workers, noise and vibration, etc. Examples of hazards caused by mining activities are pollution of water, nuisance and loss of amenity, surface instability, nutrient deficiency, noise and dust pollution.

Socio-economic costs

It is observed that the growth of the mining industry leads to the migration of people to such areas in search of jobs. The effect is the creation of slums with their accompanying health hazards, crimes and other social

vices. This can have adverse effect on the indigenous population. People join the indigenous population with their aspirations, make money and transfer it back to their home towns, often leaving the mining town less developed. In addition, the seemingly quick way of earning income does not allow the indigenes to invest in long-term human capital for a more sustainable earning. Mireku-Gyimah (2001) mentions this attitude in his inaugural lecture as "... over population with its attendant crimes ...” (P. 4).

To the people of the mining towns in Ghana, the destruction of the flora and fauna, as well as land degradation constitute great financial losses, because their livelihood is supposed to depend on farming, lumbering and hunting. Air and water pollution cause a lot of diseases, which in most cases require substantial amount of money to cure. In the words of Mireku-Gyimah (2001), “Then the over population with its attendant crimes bring about problems, the solution to which calls for extra national budget” (P. 5).

Land damage and water pollution

Dzibodi-Adjimah (1996) writes on environmental damage associated with mining to include land damage. This is about the levelling of hills and building up of heaps of mine dumps and the creation of waste ponds which result in the destruction of the natural scenery and the degradation of the countryside. Suglo (1998) in agreement with Dzibodi-Adjimah (ibid) states that “...there has been an increase in blasting operations and their consequent ground vibrations, noise and dust levels, widespread land degradation and pollution of some water sources”. Appendix D.i (Plate 1) is a typical landform caused by land damage by galamsey workers in Tarkwa.

Major subsidence

In many countries the principal risk probably lies with very old, abandoned works whose stability or even existence may be unknown. Active mines also subside if care is not taken. For example at Konongo, in the Ashanti Akim District, during the days of the defunct State Gold Mining Corporation (SGMC), there was ground subsidence, which took the lives of sixty workers. The place has a historic name “okum aduesia”. This literally means the destruction of sixty lives (Personal interview with Mr. Mike Affam, Lecturer Geological Engineering).

Human capital development

There are three major resources available to any business enterprise. They are land, labour and capital. Labour is interchangeably used with the term human resources or human capital. This thesis focuses on the need to develop human capital, by means of education, for a sustainable earning.

Cole (1997) defines education as “any long term learning activity aimed at preparing individuals for a variety of roles in society: as citizens, workers and members of family groups.” He maintains that the primary focus of education is first on the individual and his or her needs, and secondly on the community as a whole, i.e. the society’s needs” (p. 171). He gives some examples of needs for the individual and the society. He says the individual needs consist of “the need to be literate, the need to be prepared for some occupation and the need to make the most of one’s personal gifts and talents.” For the society he cites the following example: “the need for respect for law

and order, the need for a variety of talents to sustain economic activities and the need to protect itself from external aggression” (P.171).

From the definition above, one can say that there are social returns and private benefits to be derived from developing human capital of a community by means of education. It is known that the products from secondary schools, polytechnics and universities can easily avail themselves of better job opportunities and promotion at the workplace than illiterate workers or products of basic education. Advertisements for messengers in the University of Mines and Technology require a minimum qualification of Senior Secondary School with a pass in English Language. A sample advertisement of Western University College, Tarkwa, (now University of Mines and Technology, Tarkwa) in June 2003 is presented in Appendix E. In addition to these, higher wages and salary scales are skewed towards people with higher educational qualifications rather than on productivity and performance in the Universities. People with higher academic qualifications earn more than those with lower academic qualifications. Table 1 is an extract of the salary scales in the public Universities in Ghana as at the time of the research. It shows that the private rate of returns to University graduates on the average is about 3.5 times higher than those of primary school, Junior Secondary School and Senior Secondary School graduates working in the Universities. The salaries are fixed irrespective of the assiduity of the employee. In Table 1, the first category consists of illiterate employees, employees with Middle School Leaving Certificate or Basic Education Certificate Examination and Senior Secondary School Certificate Examination. Category two (Technician

Equivalent) consists of University graduates with first degrees while the third category comprises University graduates with second degrees and above.

Table 1: Annual basic salary in public universities (2006)

| Category | Point 1 | Point 5 | Point 8 |
|-----------------------|------------|------------|------------|
| Cleaner/Messenger | GH¢700.2 | GH¢79.00 | GH¢871.1 |
| Technician Equivalent | GH¢2,436.4 | GH¢2,683.8 | GH¢2,886.6 |
| Lecturer Equivalent | GH¢4,289.4 | GH¢4,593.9 | GH¢4,829.8 |

Source: Accounts Department, University of Mines and Technology (2006)

Studies have revealed that life-time-earnings have a positive correlation with levels of education. When people are employed in any business set-up, they are placed on salaries that match their educational levels as in the case of the Public Universities in Table 1. In the eyes of rational business people, schooling increases the value of workers to the firm. The firm will therefore employ people who have had a reasonable level of education in the community.

Human capital formation is defined here as the education and training process whereby a person, from childhood to adulthood, acquires the knowledge, skills and competencies for effective performance as an individual or a member of a group – say in the workforce. Like physical capital, human capital raises the ability to produce goods and services for appropriate rewards. Raising human capital requires investment in training, educational facilities and facilitators for a systematic skills acquisition for economic growth.

Under the topic 'Investors in People', Cole (1997) states that "the benefits claimed for investment in people include improved earnings; productivity and profitability; reduced costs and wastage; enhanced quality; improved employee motivation; greater customer satisfaction; competitive advantage; and public recognition.

If an individual is bequeathed with the legacy of human capital, it can never be taken away from him, but if somebody is bequeathed with any physical legacy, the person can lose it in future. In communities dominated by mining activities, the basic assistance from the companies could be the development of the human capital in respect of the indigenous youth. This should take the form of support for basic, secondary and tertiary education and, if necessary, on-the-job training of employees. This would have a relatively permanent value for the beneficiaries just as the natural resources have value for them.

In effect, good education leads to improved skills, efficiency in job performance, better employment opportunities and increased productivity. This, in turn, leads to a boost in national output. This means that when the indigenous youth are given the support to acquire good education they may not necessarily work with the mining companies, but may have other employment opportunities available to them.

One of the key objectives of business organisations is to improve the socio-economic status of communities by reducing unemployment. Increased access to education and training is supposed to have a positive effect on employment levels within the community. The multiplier effect of increased employment and availability of jobs to the individual and the economy as a

whole cannot be over emphasised. It will create income security and improve the living standards of the people in the community.

CHAPTER THREE

METHODOLOGY

Introduction

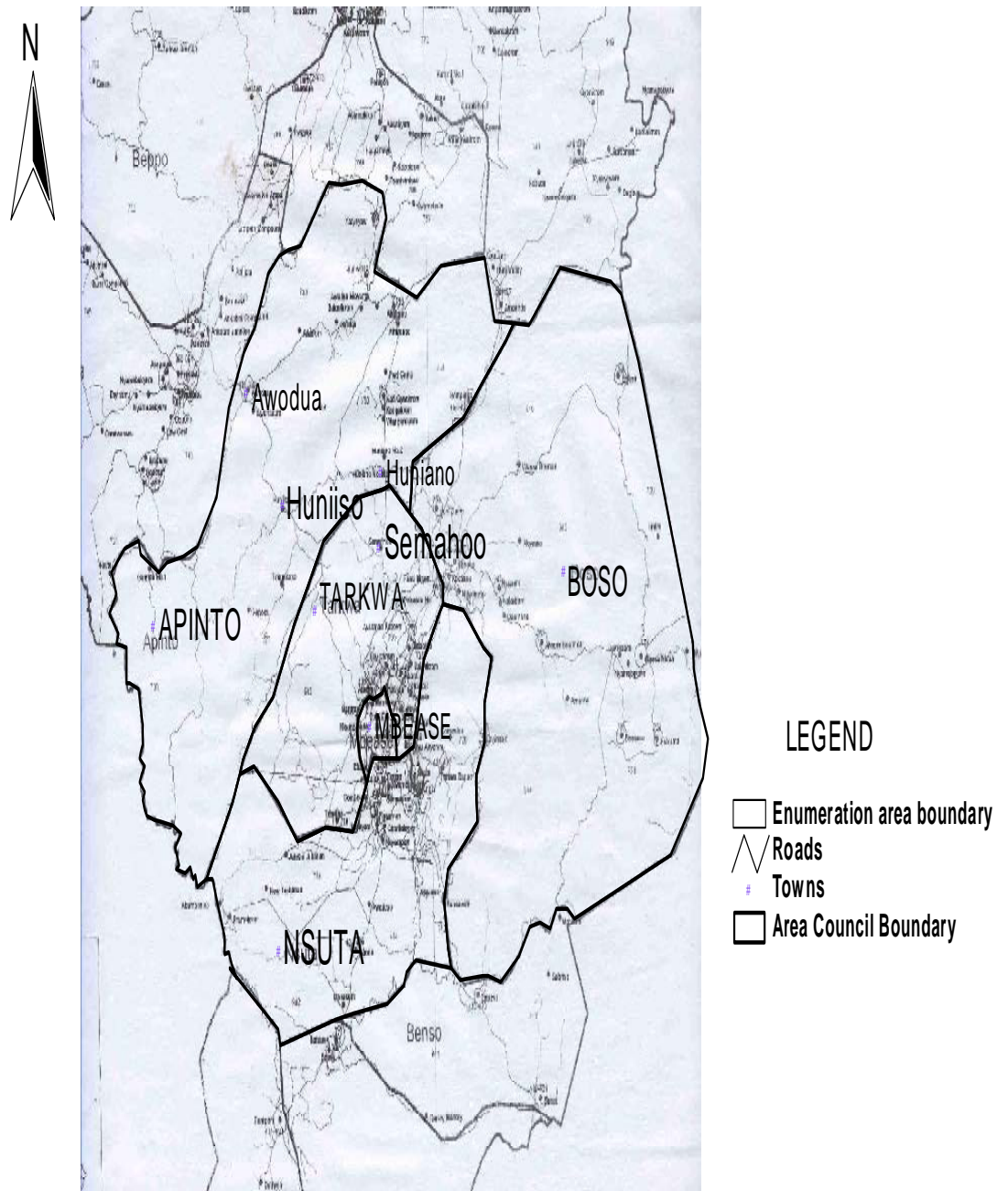
Considering the objective of the study, the research was conducted in some educational institutions in the area. The research was about indigenes in school and in *galamsey*. It therefore became necessary to include some main *galamsey* organisations in the study. The human capital development by some organisations in the area has also been taken care of.

The study area

Tarkwa is the study area of this dissertation. Figure 1 is a map of Wassa West District showing the location of Tarkwa. Tarkwa town is about 10 square kilometres. It is the capital of Wassa West District in the Western Region of Ghana. The study covers the Tarkwa Township as well as its environs of Tamso, Bankyem and Nsuta to the south, Samahu, Awudua and Huniso to the North and Tarkwa Bansa to the East.

There are high mountains and secondary forests in the study area. The area records all-year-round rainfall. According to the Meteorological station at the University of Mines and Technology (UMaT), Tarkwa, (2006), the highest rainfall in 2004 was 272.4 mm, which was in March and the lowest in December (34.2 mm,). The average rainfall in 2004 was 153.3 mm. In 2005 and 2006 the average rainfalls were 200.45 mm and 157 mm respectively.

A SECTION OF WASSA WEST DISTRICT MAP SHOWING STUDY AREA



Scale: 1: 230000

Figure 1: Map of Wassai West District

Source: Geomatic Engineering Department, UMaT (2010)

Tarkwa is located in a typical rainforest region with fertile soil where cash crops like cocoa, coffee, oil palm and coconuts, as well as food crops

crops like cassava, maize, plantain and cocoyam can be cultivated. Farming, which is supposed to be the main occupation in the area, is not widely practised by the residents because ostensibly small-scale mining activities bring faster income to them than farming. Amegbey (1997) asserts that “Since 1989 when small scale mining in Ghana was legalised, a lot of interest has been generated in the sector because of its socio-economic benefits”. In addition to the socio-economic benefits, most of the land around Tarkwa is leased to the mining companies. Therefore it is not advisable to cultivate permanent cash crops on such lands since the land can be taken over by the companies which pay next to nothing as compensation to the farmer.

National educational institutions in the study district

There are five Senior High Schools and one University in the district; Tarkwa Senior High School, Bogoso St. Augustine Senior High School, Huni Valley Senior High School, and Prestea Senior High School. The University of Mines and Technology was started as a Technical Institute for the instruction and training of mine employees. In 1976 it became a school under Kwame Nkrumah University of Science and Technology, Kumasi for the training of manpower for the mines. This institution developed into a University College in 2001 and finally attained the University status in 2004.

The development of human capital in the district is receiving further attention with the establishment of a Goldfields Ghana Sponsorship Scheme. Also, the Wassa Fiase Educational Trust established by the chiefs of the area is aimed at sponsoring indigenes of the area. In addition, there is a Plant Engineering Training Programme at the UMaT which together with the

support of the mining companies putting up basic schools as part of their social responsibilities in the area is helping in education and training in the area. The main objectives of these support programmes are to assist the indigenes to acquire some education to reduce poverty and unemployment in the communities.

Economic activities

The predominant economic activity is mining. The mining activities are classified into large-scale and the small-scale. The large-scale mining activities are undertaken by limited liability companies which employ a good number of people resident in Tarkwa. The major mining companies are: Goldfield Ghana Ltd.; Ghana Manganese Company, Anglo-Gold Ghana Ltd. Damang Goldfields Ltd., and Bogoso Goldfield Ltd. The small-scale mining sector, popularly known as *galamsey* has a good number of the youth engaged in it. Small-scale mining attracts the youth of Tarkwa, including the indigenous people. Notwithstanding these, there are cocoa farming and lumbering activities that are undertaken in the district.

Study design

As indicated earlier, the study was done in some schools in Tarkwa town and the hinterland together with *galamsey* sites. The schools were classified into Basic, Senior High and the University. Visits to these institutions and interactions with the representatives of the students were done. Questionnaires and interview guides were used to interact with these respondents, (refer to Appendix C).

The study was strictly exploratory, whereby attempts were made to generate new ideas and obtain insights into the type of corporate social responsibilities that should be undertaken by the mining companies. The problems examined were the employability of the indigenous youth in the mining companies or elsewhere, and whether or not the corporate social responsibilities of the companies embody the development of the human resources of the youth.

Sample size

The population under study (the sample frame) consisted of school pupils, students and galamsey operators of school going age within the research area. Out of 75 basic schools in the research area, 23 were selected for the study. The schools selected were those with large enrolments. Thus they were purposively sampled. The sample frame was made up of the University of Mines and Technology, Tarkwa, the two largest and oldest senior high schools in the research area, six selected primary schools and eight Junior high Schools in the cosmopolitan centre, five Primary Schools from the hinterland and four Junior high Schools from the hinterland. In addition, six small-scale mining groups were selected from Tarkwa town. These are; K. Gyasi and Friends, K C Company, Small Scale, Westside Junior, Gold Mining Society and Akoon Cooperation.

From the hinterland, eleven small-scale mining groups were selected. These were; Kakrayebedi, Denkyembrum, Swine Aboi, Pepesa Mining, J. John Site, Accra Site, Hajia Site, South Africa, Kumi Site and World Bank.

A few respondents were also selected from the District Office of the Ghana Education Service to provide information. The total sample size for the

entire study comprised 9,138 respondents from the various institutions. Cosmopolitan primary schools had the largest population of 2,443. this is followed by Primary Schools in the hinterland with 2,037. The least number of respondents were the students of the Apprenticeship Programme, i.e. 55. From the data collected from the Department of Statistics at the District Education Office, Tarkwa, it was estimated that the total enrolment in the selected schools was about 31% of the enrolment in all the schools in the research area.

Table 2: The sample population

| Institutions | Workers/Students |
|-----------------------------|------------------|
| Cosmopolitan Prim Schools | 2,443 |
| Hinterland Prim Schools | 2,037 |
| Cosmopolitan J. H. S | 1,025 |
| Hinterland J. H. S | 239 |
| Fiaseman Senior High School | 1,138 |
| Tarkwa Senior High School | 898 |
| Total | 9,138 |

Source: Field survey (2006)

This fulfils the principle of representative sampling in data collection. In addition to the questionnaires and interviews with officials of the institutions, there were discussions with the Co-ordinator of the Apprentice Training Programme of University of Mines and Technology, Tarkwa, and that of the mining companies. Data was purposively obtained from six out of the about 15 *galamsey* groups in Tarkwa. These were selected because of their

sizes and prominence. Eleven *galamsey* units were also selected in the hinterland.

Data collection method

The methods employed for the research included:

- A preliminary survey. The *galamsey* sites were visited for personal observations, discussions and the taking of pictures on typical activities, (Appendix F, Plates 4 and 5). The questionnaires and interview (structured type) were administered on the representatives of the selected groups, i.e. some teachers of the selected schools, education officers and *galamsey* leaders. That made it possible to cover 9138 respondents.
- The questionnaires were distributed in bulk to the class teachers to cover the number of students in the class. A letter of introduction was taken from the Ghana Education Service District Director for the exercise, (Appendix A). During the interview respondents were allowed and encouraged to cite instances and cases to support their points.

It is due to the nature of the respondents (mostly pupils and students) that led to the selection of heads of institutions and class teachers for the interview. It is important to note that in modern sciences such as Management or Sociology there are multifarious issues and untested problems, particularly those associated with people. Zakaria (1998) “recommends the application of a ‘naturalistic’ approach in such cases, whereby attention is focused on understanding actualities, social realities and human perceptions that cannot be

easily measured through conventional science methods”. This principle provided the basis for the interviews and discussions on the subject matter of the study.

Instrumentation

Questionnaires for educational institutions

The questionnaires (Appendix D) covered among other things;

- Job title of the respondents
- Number of Senior High Schools in Wassa West District; public and private
- Basic schools established by mining companies in the research area

If there were any sponsorship packages by mining companies. Names of some basic schools with high enrolments.

Questionnaires for *galamsey* operators (Appendix E)

- Whether or not respondent is an indigene, his age, and whether or not he attended or attends school
- Educational level of attainment by respondent
- Earnings of respondents
- Whether or not respondent would accept being sponsored for education
- Whether or not parents of respondent know that respondent combined *galamsey* with schooling
- Whether or not teachers of respondent know that respondent combined *galamsey* with schooling.

Data presentation and analysis

The descriptive statistical analysis method was employed. It involved summarising data in a way that would make it possible for the results to be interpreted, and required ordering. The data was presented in the form of frequency distribution tables and charts.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

It is an indisputable fact that anywhere a mining operation exists there are bound to be some benefits to the community, at the same time there are bound to be inconveniences which may be created by the mining activities. Some of the inconveniences created are discussed in chapter two.

The corporate social responsibilities of the mining companies towards the people in the research area were discussed. As natural resources are extracted from the area by the mining companies, it is expected that the companies will compensate the indigenes for the loss of such resources. The compensation is expected to take the form of social amenities like, school blocks, hospitals, provision of portable water etc. By the nature of this research any social amenity that will take care of developing the human capital of the people whose resources have been taken over by the companies is what is worthwhile. It is noteworthy that these compensation packages do not have permanent and direct values to the individuals, who own the lands that are exploited by the Mines, in the same way as the ownership of the natural resources have. If the corporate social responsibilities will take the form of making the indigenes to have adequate schooling, the value of which will be relatively more permanent, the better that will be.

The analysis and discussions are focussed on:

- The extent to which the indigenes attend school;
- A comparative assessment of performance of cosmopolitan and hinterland schools in the Basic Education Certificate Examination (BECE), as a prerequisite for higher education;
- The extent to which indigenes get access to higher education;
- The extent to which indigenes are sponsored in education by the mining companies in Tarkwa, a compensation for the exploitation of their natural resources; and
- Assessment of the level at which indigenous youth are involved in small-scale mining, (a deviation from schooling), and its implications on the social responsibility policy/practice of the mining companies.

Indigenes in the basic schools

The studies began by collecting data of indigenes in Basic Schools in Tarkwa Township. The research started at Tarkwa Catholic B Primary School. Data were collected from all classes, primary one to primary six. To simplify the study, only the totals of indigenes in the schools were considered for the discussion (the details are shown in appendix B). The total of indigenous students in Tarkwa Catholic B was 49 and the non-indigenous students were 435. The indigenes represent 10 percent of the enrolment in the school (Table 3). The detailed data for all the classes can be seen in appendix B1. The next school considered for discussion was Nana Fabil Islamic Primary School, there the enrolment of the indigenes was 40 whereas the non-indigenes (migrants) were 328, and thus 11 percent of the total enrolment was indigenes.

Hooper Primary School was the next to be visited. There the enrolment of the indigenes was 66 out of a total enrolment of 296.

Table 3: Distribution of indigenes/migrants in selected primary schools in Tarkwa

| School | Indigenes | Migrants | Total | Indigene percent |
|--------------------|-----------|----------|-------|------------------|
| Catholic Prim. B | 49 | 435 | 484 | 10 |
| Nana Fabil Islamic | 40 | 328 | 368 | 11 |
| Hooper Primary | 66 | 230 | 296 | 22 |
| Amo Memorial | 72 | 490 | 562 | 13 |
| St. Paul Anglican | 38 | 159 | 197 | 19 |
| UMaT Primary | 59 | 477 | 536 | 11 |
| Total | 324 | 2,119 | 2,443 | 14 |

Source: Field survey (2006)

Then the indigenes in Hooper Memorial were found to be 22 percent of the total enrolment in the school. In Amo Memorial Primary School, 72 out of a total enrolment of 562 were indigenes; this represents 13 percent of the total enrolment. St Paul Anglican Primary registered 38 indigenes out of 197 pupils in the school, that is, 11 percent of the total enrolment. The total of the indigenous pupils in all the selected primary schools was 324 out of the absolute total enrolment of 2,443. Therefore in the selected primary schools the percentage of the indigenes out of the total school enrolments was 14. Note that the enrolments in the various classes (Primary one to six) are obtained in appendices B1 to B6.

The aim of the research at this stage was to compare the percentage of the indigenes in school to the percentage of indigenes in galamsey in Tarkwa town. But before the comparison the research studied the enrolments in the Junior High Schools, since a large number of galamsey operators are of the age of JHS students.

Table 4: Distribution of indigenes/migrants in selected Junior High Schools in Tarkwa

| School | Indigenes | Migrants | Total | Indigene percent |
|---------------------|-----------|----------|-------|------------------|
| UMaT JSS | 31 | 222 | 253 | 12 |
| Catholic B JSS | 17 | 259 | 276 | 6 |
| Catholic A JSS | 55 | 197 | 252 | 22 |
| Tarkwa Methodist | 64 | 414 | 478 | 13 |
| Tarkwa Quayson JSS | 39 | 234 | 273 | 14 |
| Hooper Memorial JSS | 15 | 133 | 148 | 10 |
| St. Paul JSS | 30 | 145 | 175 | 17 |
| Islamic JSS | 31 | 151 | 182 | 17 |
| Total | 282 | 1,755 | 2,037 | 14 |

Source: Field survey (2006)

In the selected Junior High Schools in Tarkwa Township, the enrolments of the indigenes were lower than that of the migrants as indicated in Table 4; Catholic B JHS, Catholic A JHS, Tarkwa Methodist JHS, Quayson JHS, Hooper Memorial JHS, St Paul's JHS and Islamic JHS all have a lower percentage of indigenes. It is realised that the total distribution of the enrolments of indigenes in the selected Junior High Schools was 282 out of

2,037 students, which gives an absolute percentage of 14. The enrolments in the various classes (JHS 1 to JHS3) are obtainable in appendices B7 to B14.

Since the percentage of indigenes in the primary schools was 14 and that of the Junior High Schools was 14, it means that the percentage of indigenes in the Basic schools in the selected schools was 14.

The research was extended to some schools in the hinterland. Table 5 contains the data of some primary schools in the hinterland. The primary schools that were selected were Tarkwa Bansa Catholic, Awudua Catholic, Awudua Methodist, Huniso Methodist, and Richard Graeme. When the research was conducted, the total enrolment in the five schools was 1025. The total number of indigenes in these schools was 549; therefore the absolute percentage of indigenes to the total enrolment was 54. Enrolments in the various classes (primary one to six) are recorded in appendices B15 to B19.

Table 5: Distribution of indigenes/migrants in selected Primary Schools in the Hinterland

| School | Indigenes | Migrants | Total | Indigene percent |
|----------------------|------------|------------|--------------|------------------|
| T’kwa Bansa Catholic | 159 | 31 | 190 | 84 |
| Awudua Catholic | 177 | 19 | 196 | 90 |
| Awudua Methodist | 117 | 37 | 154 | 76 |
| Huniso Methodist | 74 | 159 | 233 | 32 |
| Richard Graeme | 22 | 230 | 252 | 9 |
| Total | 549 | 476 | 1,025 | 54 |

Source: Field survey (2010)

The research was extended to the Junior High Schools in the hinterland, (Table 6). The schools covered were: Awudua Methodist JHS, Richard Graeme - Samahoo, Tarkwa Bansa JHS and Huniso D/A JHS.

Table 6: Distribution of indigenes/migrants in selected Junior High Schools in the Hinterland

| School | Indigenes | Migrants | Total | Indigene percent |
|--------------------|-----------|----------|-------|------------------|
| Awudua Methodist | 60 | 16 | 76 | 79 |
| Richard G. Samahoo | 3 | 55 | 58 | 5 |
| Tarkwa Bansa JSS | 45 | 9 | 54 | 83 |
| Huniso D/A JSS | 21 | 30 | 51 | 41 |
| Total | 129 | 110 | 239 | 54 |

Source: Field survey (2006)

When the data were taken at the JSS in the hinterland, it was realised that the total indigenes in the five schools was 129 whilst the total enrolment in the five schools was 239, therefore the percentage of indigenes in the five schools was 54. This can be seen in table 6. The enrolments in the various classes (JHS 1 to JHS 3) are recorded in Appendices B20 to B23.

The relative increase in the percentage of the indigenes in schools within the hinterland is attributed to the fact that indigenes normally live in rural areas; that is where they come from. Relatively, a few indigenes could claim to have come from the cities. It is also clear that the migrant enrolment is fairly large (46%) of the total enrolment. This is due to the fact that there are other ethnic groups that came to settle there for farming purposes in previous eras, (interview with teachers in the hinterland).

It is possible that migrants form the larger population in the research area, therefore, it is inadequate to use the figures of migrants and indigenes in the Primary and JHS to assert that the indigenes do not patronise schooling. Against this background the figures were also compared with the patronage of small scale mining operations undertaken by the indigenes. It was observed that the indigenous youth patronised the *galamsey* more than they did to schooling. To authenticate this assertion, some information on the issue was obtained from *galamsey* groups in Tarkwa town. For the purpose of representativeness six out of the ten *galamsey* units in Tarkwa town were selected for data collection. At the sites the Heads of the groups were contacted to assist in providing the information. Since the population for the study was people of school-going age, at every site statistics of operators whose ages fell within 11 to 20 were selected for the study, this corresponds with the ages of JHS students.

Indigenes of school going age involved in galamsey operation - Tarkwa

The *galamsey* groups selected for the exercise were: K Gyasi and Friends, OCK Company, Small-Scale, Westside Junior, Gold Mining Society and Akoon Cooperation (Table 7). The result of the exercise indicated that out of 149 workers of school going age, the indigenes were 108, thus 73 percent.

Table 7: Indigenes of school going age in galamsey operation – Tarkwa

| Organisation | Total in Group | Indigenes | Indigene percent |
|---------------------|----------------|-----------|------------------|
| K. Gyasi & Friends | 14 | 12 | 86 |
| O K C Company | 20 | 16 | 80 |
| Small Scale | 27 | 20 | 70 |
| Westside Junior | 30 | 20 | 67 |
| Gold Mining Society | 31 | 25 | 81 |
| Akoon Cooperation | 27 | 15 | 56 |
| Total | 149 | 108 | 73 |

Source: Field survey (2006)

When one compares this with the situation in the Basic schools in Tarkwa, one realises that there was a larger percentage of indigenous youth at the *Galamsey* sites (73%) than there was at the Basic Schools (14%). As done to the schools in Tarkwa, the research was also extended to the hinterland (Awudua area) to pick data at the *Galamsey* sites to verify the assertion.

The selected *Galamsey* groups were as in table 8: Kakrayebedi, Denkyembrum, Swine Aboi, Pepesa Mining, A. J., John Site, Accra Site, Hajia Site, South Africa, Kumi Site and World Bank. The result of the study was: total operators 286 and total indigenes 230; percentage of indigenes 80. There is not much variation between the results of Tarkwa (73%) and that of the Hinterland (80%).

Table 8: Indigenes of school going age in galamsey operation – Awudua

| Organisation/Institution | Total in group | Indigenes | Indigene percent |
|--------------------------|----------------|-----------|------------------|
| Kakrayebedi | 25 | 24 | 96 |
| Denkyembrum | 24 | 20 | 83 |
| Swine Aboi | 28 | 25 | 89 |
| Pepesa Mining | 25 | 23 | 92 |
| A. J. | 24 | 20 | 83 |
| John Site | 25 | 20 | 80 |
| Accra Site | 30 | 15 | 50 |
| Hajia Site | 28 | 24 | 86 |
| South Africa | 26 | 18 | 69 |
| Kumi Site | 24 | 21 | 88 |
| World Bank | 27 | 20 | 74 |
| Total | 286 | 230 | 80 |

Source: Field survey (2006)

The elders at the various groups were interviewed about the involvement of the school children in galamsey operations. The information gathered was that some school children went to the site, but when they were in school uniform the elders drove them away. If they were not in uniform they were permitted to operate. It implies that some students combined the *galamsey* operation with schooling. When some school children at the site were interviewed about why they combined *galamsey* operation with schooling, some of them said their parents encouraged them to do it. The parents, who were expected to care for their children's education, rather

encouraged them to embark on *galamsey* operation so that they could use part of the money to buy their school uniforms, and part as pocket money for school. The researcher visited the houses of 4 JSS students who combined *galamsey* with schooling. These students were able to furnish their rooms as if they were workers. The researcher again interviewed some youth who were doing full-time *galamsey* about why they left school. The response from a few of them was that on a booming day the earnings that they got were more than the monthly earnings of a teacher. They quoted the earnings of a teacher as one million, five hundred thousand cedis (¢1,500,000), now GH¢150.00. Asked about the source of their information about the salaries of teachers, they said they had it from striking teachers.

Indigenes in the Senior High schools

The two largest High schools out of the four in the research area were selected for the study. The students, who were available to provide information at Tarkwa High School were 898, and were in form one to form three. (Questionnaires were administered to three teachers to distribute them to the students for completion). Out of this figure, 167 were indigenous students from various places in the district; beyond the research area, and 731 were non-indigenous students. The indigenous students represent approximately 19 percent of the number. Then at Fiaseman High School, the total number of respondents was 1,138 with 280 indigenes and 858 migrants. The indigenes represent approximately 25%. In summary, the total indigenes in both secondary schools were 447, the non-indigenes (migrants) were 1,589 and the

total respondents were 2,036. Therefore, the percentage of indigenous students out of the total respondents was 22. This can be seen in table 9.

Table 9: Distribution of indigenes enrolment in the selected Senior High Schools in Tarkwa

| School | Indigenes | Migrant | Total | Indigenes percent |
|--------------------|-----------|---------|-------|-------------------|
| Tarkwa Sec. Sch. | 167 | 731 | 898 | 19 |
| Fiaseman Sec. Sch. | 280 | 858 | 1,138 | 24 |
| Total | 447 | 1,589 | 2,036 | 22 |

Source: Field survey (2006)

Table 9 represents the percentage of the indigenes in the two largest Senior High Schools within the area where the research was carried out. It would be assumed that the indigenes would naturally outnumber the non-indigenes in the two Senior Secondary Schools in Tarkwa. The policy of de-boardinisation in second cycle schools should entice the indigenes to patronise the local Senior High Schools than they would do to schools outside the locality. Thus parents who would not have enough money to finance their wards in the boarding school might prefer the de-boardinisation policy. Against this background, many indigenous students were expected to be day-students. But the situation in Table 9 is contrary to what it is supposed to be achieved under the de-boardinisation system. It is obvious that students who do not come from the locality will be admitted into the boarding system.

Examination results in selected Junior High schools

The research went further to probe the trend of the performance of candidates at the Basic Education Certificate Examinations in the Tarkwa Township and the hinterland. This was done to find out whether or not the indigenous pupils could have access to higher education, the result of which might explain the findings presented in Table 9. The data covered 2003/2004 and 2004/2005 academic years.

Table 10: BECE results – selected JHS in Tarkwa 2003/2004

| School | Candidates | No. Passed | Percentage |
|-------------------|------------|------------|------------|
| UMaT Basic | 62 | 62 | 100 |
| Tarkwa Islamic | 21 | 21 | 100 |
| Tarkwa Catholic A | 87 | 46 | 53 |
| Tarkwa Quayson | 152 | 145 | 95 |
| St. Pual | 36 | 29 | 81 |
| Total | 358 | 303 | 85 |

Source: Field survey (2006)

Considering the data from 5 Junior High Schools in Tarkwa Township (Table 10), in 2003/2004, 358 students were presented for examination and 303 passed, that is, they had grades ranging from aggregate 6 to 30 in six subjects including Mathematics and English Language. The percentage pass was 84.6. The same schools in 2004/2005 presented 341 candidates and 287 passed, representing 84.2 percent, (Table 11).

Table 11: BECE results – selected JHS in Tarkwa 2004/2005

| School | Candidates | No. Passed | Percentage |
|-------------------|------------|------------|------------|
| UMaT Basic | 65 | 65 | 100 |
| Tarkwa Islamic | 36 | 32 | 89 |
| Tarkwa Catholic A | 79 | 42 | 53 |
| Tarkwa Quayson | 135 | 125 | 93 |
| St. Pual | 26 | 23 | 89 |
| Total | 341 | 287 | 84 |

Source: Field survey (2006)

Data from three Junior Secondary Schools in the hinterland in 2003/2004 academic year (Table 12) show that a total of 52 candidates were presented for Basic Education Certification Examination from Awudua Methodist, Huniso D/A JSS and Tarkwa Bansa JSS, and out of the number seven passed, giving a percentage of 14.

Table 12: BECE results – selected JHS in the Hinterland 2003/2004

| School | Candidates | No. passed | Percentage pass |
|----------------------|------------|------------|-----------------|
| Awudua Methodist JSS | 22 | 5 | 23 |
| Huniso JSS | 12 | 1 | 8 |
| Tarkwa Bansa JSS | 18 | 1 | 6 |
| Total | 52 | 7 | 14 |

Source: Field survey (2006)

Then in 2004/2005 the same three schools presented 72 candidates and seven passed, yielding a percentage pass of 10 (Table 13).

Table 13: BECE results – selected JHS in the Hinterland 2004/2005

| School | Candidates | No. passed | Percentage pass |
|----------------------|------------|------------|-----------------|
| Awudua Methodist JSS | 23 | 4 | 17 |
| Huniso JSS | 20 | 1 | 5 |
| Tarkwa Bansa JSS | 29 | 2 | 7 |
| Total | 72 | 7 | 10 |

Source: Field survey (2006)

At Awudua Methodist JSS, for example, the indigenes formed approximately 79 percent of the enrolment (Table 6) and at Tarkwa Bansa JSS the percentage was approximately 83 (Table 6). At Huniso, a village dominated by settler farmers, the indigenes were about 41 percent of the school enrolment. These relative distributions indicate that in some of the villages, the school enrolment of the indigenous youth was quite encouraging. Therefore if the BECE results were good in these areas, all other things being equal, it would have been possible for a good number of the indigenes in the research area to have access to higher education.

Table 14 indicates that the performance of candidates in the 5 schools in the BECE in 2003/2004 academic year was very high (84%), but the percentage of indigenes enrolment altogether was 14 (Table 4). There is, therefore, the possibility that irrespective of the good performance in these schools, only a few indigenous students passed the examinations, thus a few indigenes could have access to higher education. There is not much variation in the examination results of 2003/2004 academic year and the results of 2004/2005 academic year.

In the hinterland the performance of candidates in the three schools in the BECE of 2003/2004 was not encouraging. The percentage of the examination performance in all the three schools for the period was 14. It is realised that Huniso JSS and Tarkwa Bansa JSS had one pass each. Even Awudua Methodist JSS which had 23 percent pass in the final examinations had only 5 passes out of 22 candidates that were presented for the BECE. Incidentally these schools had high enrolments of indigenes at the time of the research. Tarkwa Bansa, for example, had 83 percent of indigenous students (but only 2 students passed), Awudua Methodist had 79 percent (but only 5 student passed) and Huniso JSS had 41 percent (but only one student passed). These values imply that the chances of indigenous students, in these schools, of getting access to higher education are very slim.

The 2004/2005 records from the same schools as shown in (Table 13), indicate a fall in the percentage passes from 14 to 10. Huniso JSS still had only one pass. These results clearly indicate that, all other things being equal, the indigenous youth in the hinterland can hardly have access to higher education. Since data from the Tarkwa schools indicate a very small enrolment of indigenous students, and the BECE results from the hinterland, where the indigenes patronise schooling, has very poor examination results, the chances of the indigenous students getting access to higher education seem to be very remote.

Indigenes in the University of Mines and Technology

The research also assessed the extent to which the indigenes of the research area gain admission into the University of Mines and Technology.

The total enrolment of students in both Faculties of the University was considered department by department in 2005/2006 academic year. The Heads of Departments assisted by providing admission files of students in the various classes. The data at Mining Engineering Department indicated that no indigene was admitted in the first year. There were no indigenous students from the second to fourth year (Table 14). The percentage of indigenes in the Mining Engineering Programme was 0. This implies that from the research area the percentage was 0.

Table 14: University of Mines and Technology, Department of Mining Engineering

| Class | Indigenes | Migrant | Total | Indigenes percent |
|--------|-----------|---------|-------|-------------------|
| Year 1 | 0 | 36 | 36 | 0 |
| Year 2 | 0 | 26 | 26 | 0 |
| Year 3 | 0 | 27 | 27 | 0 |
| Year 4 | 0 | 34 | 34 | 0 |
| Total | 0 | 123 | 123 | 0 |

Source: Field survey (2006)

In the Department of Geological Engineering, there were 6 indigenous students out of 144 students in all. The percentage of indigenous students in the department was 4.

Table 15: University of Mines and Technology, Department of Geological Engineering

| Class | Indigenes | Migrant | Total | Indigenes percent |
|--------|-----------|---------|-------|-------------------|
| Year 1 | 4 | 27 | 31 | 13 |
| Year 2 | 1 | 35 | 36 | 3 |
| Year 3 | 1 | 41 | 42 | 2 |
| Year 4 | 0 | 35 | 35 | 0 |
| Total | 6 | 138 | 144 | 4 |

Source: Field survey (2006)

At the Geomatic Engineering Department (Table 16), out of a total enrolment of 134, 7 students were indigenes, thus 5 percent indigenes.

Table 16: University of Mines and Technology, Department of Geomatic Engineering

| Class | Indigenes | Migrant | Total | Indigenes percent |
|--------|-----------|---------|-------|-------------------|
| Year 1 | 3 | 34 | 37 | 8 |
| Year 2 | 0 | 27 | 27 | 0 |
| Year 3 | 1 | 29 | 30 | 3 |
| Year 4 | 3 | 37 | 40 | 8 |
| Total | 7 | 127 | 134 | 5 |

Source: Field survey (2006)

In Mineral Engineering Department (Table 17), out of 137 students only 5 were indigenes. Therefore the percentage of indigenes was 4.

Table 17: University of Mines and Technology, Department of Mineral Engineering

| Class | Indigenes | Migrants | Total | Indigenes percent |
|--------|-----------|----------|-------|-------------------|
| Year 1 | 4 | 32 | 36 | 11 |
| Year 2 | 0 | 37 | 37 | 0 |
| Year 3 | 1 | 36 | 37 | 3 |
| Year 4 | 0 | 27 | 27 | 0 |
| Total | 5 | 132 | 137 | 4 |

Source: Field survey (2006)

Again, in the Mechanical Engineering Department (Table 18), the indigenous students in the Department were 8 out of the student enrolment of 159, giving a percentage of 5.

Table 18: University of Mines and Technology, Department of Mechanical Engineering

| Class | Indigenes | Migrants | Total | Indigenes percent |
|--------|-----------|----------|-------|-------------------|
| Year 1 | 5 | 39 | 44 | 11 |
| Year 2 | 2 | 31 | 33 | 6 |
| Year 3 | 1 | 43 | 44 | 2 |
| Year 4 | 0 | 38 | 38 | 0 |
| Total | 8 | 151 | 159 | 5 |

Source: Field survey (2006)

Finally at the Electrical and Electronic Engineering Department (Table 19), the indigenous students were 11 out of the student enrolment of 172, giving a percentage of 5.

A summary of the percentage distribution of indigenous and migrant students in the various departments in the University is graphically represented in Figure 2.

Table 19: University of Mines and Technology, Department of Electrical Engineering

| Class | Indigenes | Migrants | Total | Indigenes percent |
|--------|-----------|----------|-------|-------------------|
| Year 1 | 9 | 39 | 48 | 19 |
| Year 2 | 2 | 38 | 40 | 5 |
| Year 3 | 0 | 43 | 43 | 0 |
| Year 4 | 0 | 38 | 41 | 0 |
| Total | 11 | 158 | 172 | 5 |

Source: Field survey (2006)

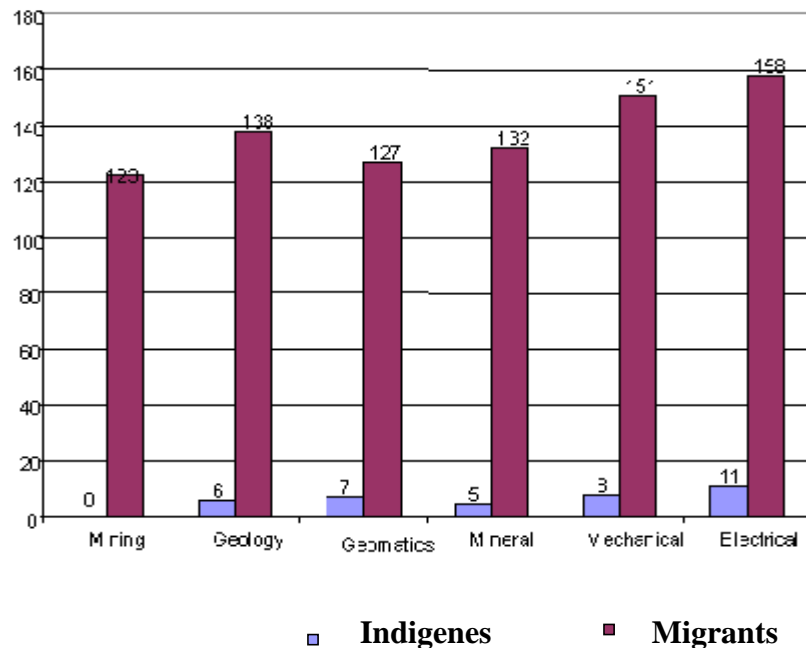


Figure 2: Distribution of indigenes and migrants in UMaT, 2006

Source: Field survey (2006)

Sponsorship of indigenes in Tertiary Institutions – A social responsibility

The study delved into sponsorship packages provided by some mining companies to the indigenes as part of the corporate social responsibilities of the Mines to the community. One prominent package is the Integrated Plant Mechanics Course, also known as the Apprenticeship Training Programme. The main objective of this programme is to train selected indigenes as apprentices who would eventually be employable at the mines. There were five companies which came together to organise this programme. These were Liebher, Bogoso Gold Limited, Sandvic, Goldfields Ghana Ltd. Tarkwa, and Abosso Goldfields Ltd. The University of Mines and Technology is the training institution for these apprentices.

Mode of selection

Selections are done annually. The co-ordinator advertises for applicants, a preliminary interview is conducted for the selection of candidates. Those who qualify are invited for examination. The entry qualification is at least one credit and two passes in the intermediate certificate by the City and Guilds Examination Board or related examinations conducted by the Technical Examinations Unit, Ghana. The applicants who pass the selection examination are subjected to a final interview for selection into various companies.

Information was sourced from an examiner and a teacher of the programme, and this revealed that more than 150 people write the examinations each year but less than 30 are selected for the programme. The largest number that has ever been selected was 21 (2006 group).

The study revealed that after every selection exercise was done, even though the programme was earmarked for the indigenous youth less than 30 percent of the selected students come from Tarkwa and the various catchments areas. Students of 2003, 2004, 2005 and 2006 were personally contacted for information about their tribes and hometowns. In all cases less than 30 percent hailed from the catchments areas. The data for those years are shown in Table 20. The table indicates that for the four years 55 candidates were selected for the programme, out of which 12 were indigenes (not necessarily from the research area). This figure represents 22 percent of the total enrolment for the four years.

Table 20: Indigenous students in apprentice training programme

| Year | Indigenes | Migrant | Total | Indigenes percent |
|-------|-----------|---------|-------|-------------------|
| 2003 | 3 | 9 | 12 | 25 |
| 2004 | 1 | 6 | 7 | 14 |
| 2005 | 3 | 16 | 19 | 16 |
| 2006 | 5 | 12 | 17 | 29 |
| Total | 12 | 43 | 55 | 22 |

Source: Field survey (2006)

The enrolments for those years defeat the objective of the mining companies to render corporate social responsibility of developing the human resource of the indigenes which will compensate same for harnessing their natural resources. People who are not supposed to benefit from the programme rather become beneficiaries, and they always form the larger percentage of yearly intake. Some respondents were of the opinion that it is because the

indigenes do not take schooling seriously that results in the low proportion of their intake into the programme.

There are other sponsorship packages from Goldfields Ghana Limited for students in UMaT. However, the packages take care of students who excel in their various programmes, and not necessarily indigenes. Thus in the various programmes, students whose cumulated weighted averages were more than 80 (best students in the class) were selected for sponsorship. Records from the Faculty of Mineral Resources Technology showed that in 2005/2006 10 students from UMaT were awarded scholarship by Goldfields Ghana Ltd, Tarkwa.

Finally, Damang Goldfields Ltd has a scholarship scheme for the indigenes. The company offers scholarship for every student, from Damang and the surrounding villages, who gets aggregate 12 or better in the Basic Certificate Examination. Such a student would be sponsored by Damang Goldfield from the Senior High School to the University. This policy of the company is in line with the corporate social responsibility of the company to the community, an attempt to develop the human resource of the people whose lands are being exploited by the company. However, experience indicates that students from the hinterland very rarely obtain such aggregate. Analogically therefore, the company's offer is likened to expecting an egg from a goat.

Educational infrastructure – A corporate social responsibility

The construction of school blocks as a human resource development programme is part of the social responsibility schemes of Goldfields Ghana Ltd, Damang Goldfields Ltd, Bogoso Goldfields Ltd and Ghana Manganese

Company. School blocks have been constructed at Awudua, (Appendixes E. 3 – E. 8), Huniso, Samahu and other places by Goldfields Ghana Ltd. Ghana Manganese Company has also put up school blocks at Tarkwa Bansa and Nsuta. Damang Goldfield Ltd also constructed school blocks in Damang and in some of the surrounding villages.

This, notwithstanding, has not impacted positively on the education of the indigenous people. The school at Abekoase and Tebe (Plate 1) is located in-between the two villages and was officially commissioned but had not taken off at the time of the research. Interview with respondents indicated that the interest of the people was not in schooling. Others also said the problem was with getting teachers. The researcher, however, inferred that the people were rather not interested in schooling, because teachers for Early Childhood were not difficult to come by as many scholars were unemployed and were seeking for jobs.



Plate 1: Abekoase, Tebe Early Childhood Development Centre

Source: Field survey (2006)

While in some places students attend classes under trees, these villages had such high quality school block yet there were no pupils to patronise it. The school building is furnished with tables and chairs for both pupils and teachers. In addition to the school block the company built a kitchen/store room to facilitate the preparation of food for the infant school children (Plate 2).

Plate 2 represents samples of teachers' residence constructed by Goldfields Ghana Ltd as part of its corporate social responsibility packages at Huniso. The buildings have been constructed for teachers in the village and it is rent-free. This is supposed to motivate the teachers to stay in the village. Irrespective of this motivation factor, some of the teachers would not stay in the village throughout the week.



Plate 2: Store room/kitchen Abekoase and Tebe Early Childhood Development Centre

Source: Field survey (2006)



Plate 3: Teachers' residence - Huniso Methodist Primary and JSS

Source: Field survey (2006)

Appendixes E 3 to E 8 are all educational infrastructure provided by Goldfield Ghana Ltd. Irrespective of the provision of these physical infrastructure, the performance of final-year students in the Basic Education Examination in these schools leaves much to be desired. Very few candidates were able to pass their final examinations in 2004 and 2005, (Tables 12 and 13), thus, the objective of the companies to assist the natives to acquire formal education in order to make them employable in the future is not being achieved.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The study sought to find out whether or not the activities of the Mines benefited the community whose land the companies exploit, what sort of compensation (i.e. through CSR projects) the Mines offered the community and whether the compensation adequately replaced the loss of the natural resources. The study also looked at the extent to which the Mines contributed to the Human Capital development of the indigenes of their operating communities. Finally, the research looked at the proportion of the indigenes from the research area that is able to continue their education from the Junior Secondary School to the Tertiary level.

The literature suggests a direct linkage between mining activities and the destruction of natural resources, including flora etc, having studied that mining companies have a responsibility to socially compensate the communities whose natural resources they exploit, and having observed that some mining companies undertake educational packages of diverse nature in aid of the communities; this chapter will recommend packages which have more permanent value to the communities in the face of the destruction mining activities cause to local livelihoods and human development.

Schooling by indigenes

From the data on schooling of the indigenous youth in both Tarkwa and the hinterland, it was observed that a very small number of indigenous children from Tarkwa attended school. The percentage of indigenes in six primary schools was realised to be 14 and that of four Junior Secondary Schools in Tarkwa was also realised to be 14 during the period of the research. The percentage in four primary schools in the hinterland was 54 and the percentage in four Junior Secondary Schools in the hinterland was also realised to be 54. Interview with heads of the schools revealed that in some of the villages there were more settler farmers than there were indigenous settlers, and that accounted for lower percentages in some of the villages, making the percentages approximately 54 in both cases. It was expected that the percentage of indigenes in school in the hinterland would be higher than this since indigenes naturally settle in the rural areas than the district Headquarters. In any case, the natives patronise schooling in the hinterland more than they do in the District Headquarters – Tarkwa.

Access to higher education as means of employment

Even though the enrolments in the hinterland schools were relatively smaller, the native students were comparatively more in the hinterland schools than in schools in Tarkwa town. More indigenes attend school in the hinterland than they do in Tarkwa town. However, examination results during the research period were rather unfavourable in the hinterland. Three schools in the hinterland together had final examination results of 14 percent in 2003/2004, whereas in the same year the results obtained in five schools in

Tarkwa was 85 percent. In 2004/2005 the same schools in the hinterland had 10 percent and those in Tarkwa town had 85 percent. Most of those who passed in the village schools had their aggregates ranging from 20 to 30. These results indicate that the possibility of indigenous students having access to higher education was very slim. This explained why most of the indigenous workers in the mines are mostly engaged in menial jobs and others take to small-scale mining activities.

Indigenes of school going age involved in *Galamsey* operations

From the data it was realised that 73 percent of the *galamsey* workers in Tarkwa Township were indigenes of school going age and 80 percent in the hinterland. It is evidence that the indigenous youth of the research area are more interested in the *galamsey* activities than schooling. Thus they are rather interested in getting rich at a tender age but they are unskilled and have low level of education or none at all. As such they are not employable by the mining companies.

Apprenticeship training programme

This programme was put in place basically for the indigenes. The Mining Companies intend to give technical training to the indigenes in order to make them employable at the Mines or elsewhere. The programme consists of the following courses: Bench fitting, Engineering drawing, Engineering Science, Mathematics, English and Report Writing, Stub Axle and Steering, Transmission, Internal Combustion, Hydraulics. These are first year courses. The second year courses are: Hydraulics II, Pneumatics, Epicyclic Gearing,

Suspension System, Plant Electrics, Lifting Principles, Welding and Fuel Systems. Then the final year courses are: Introduction to Computers, Power Shift and Shuttle, Small Plants, Plant Electrics, Plant Installation, Inspection and Repairs, Fluid Transmission and First Aid.

The data on admission of these students to the programme indicate that other tribes rather dominate after the selection is done. This is also explained by the fact that the natives do not perform well in the selection test, a reflection of their negative attitude towards education at the basic level. Much as the policy aims at developing the human capital of the indigenes it does not wholly benefit them.

Recommendations

Employment quota for indigenes

The indigenes of mining communities have been requesting for employment quota at the Mines. This is only practicable only when the indigenes achieve appreciable level of education. Technician Parts 2 and 3 in related courses are employable as middle level manpower at the mines. The menial jobs are left for Senior Secondary School, Junior Secondary School and illiterate workers. The natives in Tarkwa should therefore be encouraged to take schooling beyond the Junior Secondary School level. School children who take to small-scale mining should be discouraged because the struggle for money at such an age is incompatible with learning at the childhood stage.

Access to higher education

The University of Mines and Technology which was initially established as a technical school to produce middle level manpower for the mining organisations and related companies in Ghana, now produces undergraduates, and postgraduates students. The first degree products in their early years at the mines are part of the middle level manpower until they gain adequate job experience before they become part of management. If the mines should really aim at helping the communities (indigenes) to have adequate education to make them employable at the mines or elsewhere, they should jointly establish a technical school in the community as one of their social responsibility packages. Alternatively, they could help the existing university in other ways.

This will be useful to both the community and the mining companies. It will be useful to the community in the sense that it will absorb a good number of Junior Secondary School products who do not gain admission to the Senior Secondary School and will like to be prospective employees of the mines. Some of the products of the technical school can establish small businesses even if they do not get jobs in governmental and non-governmental organisations. This is a legacy when bequeathed to the native, will comparatively compensate them for the loss of arable land. To the mines, it will ultimately save the cost of recruiting expatriate workers and/or training new people for employment in the mines.

Selection of students for apprentice training programme

The selection process for the apprentice programme should be modified. In lieu of the general advertisements conducted by the coordinator

of the programme, which attract people of all walks of life, the procedure could be modified. Thus, if the target for selection is really the indigenes, then the selection should commence from the basic schools, preferably in the hinterland. The brilliant indigenous pupils in the hinterland and the brilliant but needy ones in the cosmopolitan centre could be selected for the package. The benefactor companies should track the academic records of these pupils and assist them until they obtain the certificate for middle level employment, or higher. Every company should be made to choose a quota from each year group for such assistance.

Conditional Selection of Students for Scholarship by the Mines

Some of the mines aim at offering scholarship to the indigenes. In so doing they set standards for the students to obtain before offering the scholarship. Some set standards which are very difficult for their prospective beneficiaries to obtain. If the Mines really mean business by trying to assist the indigenes the selection should rather be based on annual quota of indigenous students who qualify to enter senior secondary school.

Educational infrastructure

Good school buildings are constructed in the rural areas by the mining companies, yet trained teachers refuse postings to such places. In addition to building school blocks, special schools should be adopted by the Mines. The companies should give different forms of motivation to the teachers of the special schools. Brilliant indigenous students in such schools should be sponsored by the benefactor companies. In some cases school uniforms, books

and other educational equipment should be freely supplied to all students in the special schools. The companies can assist by providing the pupils with free breakfast/lunch in order to change their minds from going to work at the *galamsey* for pocket money. Pupils who become successful under such a package will be endowed with a legacy which will have relatively more permanent value and cannot be taken away from such beneficiaries. These beneficiaries will also transfer the same legacy to the next generation as arable land is culturally transferred to the generation unborn.

Quality of teaching in the Hinterland

The reason for poor performance in examination by candidates at the Basic Education Certificate Examination in the hinterland is partly attributed to the absence of qualified teachers in the rural areas. Brilliant teachers normally prefer settling in cities and towns thereby leaving the rural schools with less qualified teachers. The academic and professional knowledge together with the techniques of teaching of the crop of teachers in the hinterland, in most cases, cannot be compared with that of the teachers in the cities and towns. Examination results in the towns and cities are, therefore, more favourable than the results in the hinterland.

The few indigenes in the hinterland that are able to pursue higher education should be urged to take to teaching and settle within their localities. These indigenous teachers should be motivated to stay in the villages and teach. The motivation that will be given to these teachers together with their indigenous status will urge them to give of their best.

When this policy is properly carried out, the indigenous teachers will work hard and increase the performance of examination candidates in the hinterland. Consequently, more students in the hinterland will gain access to higher education and eventually become employable in the mines and elsewhere.

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APPENDICES

APPENDIX A

LETTER OF INTRODUCTION FROM THE OFFICE OF GHANA EDUCATION OFFICE

GHANA EDUCATION SERVICE

In case of reply the
Number and date of this
Letter should be quoted

My Ref No:GES/WW/TDO.310/VOL I/



REPUBLIC OF GHANA

District Education Office
Post Office Box 204.
Tarkwa – Wassa West

5TH November 2005

LETTER OF INTRODUCTION

The bearer of this letter, Mr Rocqueson A. K. Addae is a graduate student of the University of Cape Coast. He is collecting data/information in your outfit for the purpose of writing a thesis as a requirement of the programme.

I should be grateful if you would help him collect the data/information from your outfit.

Kindly give the necessary assistance that Mr Addae requires to collect the data.

A handwritten signature in cursive script, appearing to read 'C. Pratt'.

Cecilia Ama Pratt

For: District Director of Education

Wassa West

APPENDIX B

TABLES – DETAILS OF ENROLMENTS

B1. Tarkwa Catholic B1 Primary School

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| P 1 | 5 | 66 | 71 | 7 |
| P2 | 11 | 70 | 81 | 14 |
| P3 | 4 | 70 | 74 | 5 |
| P4 | 10 | 69 | 79 | 13 |
| P5 | 7 | 74 | 81 | 9 |
| P6 | 12 | 86 | 98 | 12 |
| Total | 49 | 436 | 484 | 10 |

B2. Nana Faibil Islamic Primary School

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| P 1 | 10 | 52 | 62 | 16 |
| P2 | 7 | 49 | 56 | 13 |
| P3 | 4 | 60 | 64 | 6 |
| P4 | 12 | 53 | 65 | 19 |
| P5 | 5 | 55 | 60 | 8 |
| P6 | 2 | 59 | 61 | 3 |
| Total | 40 | 328 | 368 | 11 |

B3. Hooper Memorial Primary School

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| P 1 | 5 | 48 | 53 | 9 |
| P2 | 11 | 42 | 53 | 21 |
| P3 | 12 | 30 | 42 | 29 |
| P4 | 16 | 35 | 51 | 31 |
| P5 | 10 | 35 | 45 | 22 |
| P6 | 12 | 30 | 52 | 24 |
| Total | 66 | 230 | 296 | 22 |

B4. Amo Memorial Primary School

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| P 1 | 4 | 80 | 84 | 5 |
| P2 | 13 | 84 | 97 | 13 |
| P3 | 17 | 67 | 84 | 20 |
| P4 | 11 | 93 | 104 | 11 |
| P5 | 10 | 96 | 106 | 9 |
| P6 | 17 | 70 | 87 | 20 |
| Total | 72 | 490 | 562 | 13 |

B5. St Paul Anglican Primary School

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| P 1 | 8 | 13 | 21 | 38 |
| P2 | 3 | 31 | 34 | 9 |
| P3 | 7 | 22 | 29 | 24 |
| P4 | 7 | 26 | 33 | 21 |
| P5 | 6 | 26 | 32 | 19 |
| P6 | 7 | 41 | 48 | 15 |
| Total | 38 | 159 | 197 | 19 |

B6. University of Mines and Technology Primary School

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| P 1 | 8 | 82 | 90 | 9 |
| P2 | 6 | 73 | 79 | 8 |
| P3 | 5 | 95 | 100 | 5 |
| P4 | 14 | 77 | 91 | 15 |
| P5 | 12 | 87 | 99 | 12 |
| P6 | 14 | 63 | 77 | 18 |
| Total | 59 | 477 | 536 | 11 |

B7. University of Mines & Technology JHS

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| JHS 1 | 12 | 80 | 92 | 13 |
| JHS 2 | 9 | 63 | 72 | 13 |
| JHS 3 | 10 | 79 | 89 | 11 |
| Total | 31 | 222 | 253 | 12 |

B8. Tarkwa Catholic B JHS

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| JHS 1 | 3 | 108 | 111 | 3 |
| JHS 2 | 9 | 84 | 93 | 10 |
| JHS 3 | 5 | 67 | 72 | 7 |
| Total | 17 | 259 | 276 | 6 |

B9. Tarkwa Catholic A JHS

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| JHS 1 | 18 | 79 | 97 | 19 |
| JHS 2 | 21 | 68 | 89 | 24 |
| JHS 3 | 16 | 50 | 66 | 24 |
| Total | 55 | 197 | 276 | 22 |

B10. Tarkwa Methodist JHS

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| JHS 1 | 22 | 156 | 176 | 12 |
| JHS 2 | 23 | 164 | 187 | 12 |
| JHS 3 | 19 | 94 | 113 | 17 |
| Total | 64 | 414 | 476 | 13 |

B11. Tarkwa Quayson JHS

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| JHS 1 | 17 | 71 | 88 | 19 |
| JHS 2 | 11 | 91 | 102 | 11 |
| JHS 3 | 11 | 72 | 83 | 13 |
| Total | 39 | 234 | 273 | 14 |

B12. Tarkwa Hooper Memorial JHS

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| JHS 1 | 6 | 58 | 64 | 9 |
| JHS 2 | 9 | 45 | 54 | 17 |
| JHS 3 | 0 | 30 | 30 | 0 |
| Total | 15 | 133 | 148 | 10 |

B13. Tarkwa St Paul Anglican JHS

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| JHS 1 | 11 | 51 | 62 | 18 |
| JHS 2 | 11 | 51 | 62 | 18 |
| JHS 3 | 8 | 43 | 51 | 16 |
| Total | 30 | 145 | 175 | 17 |

B14. Tarkwa Islamic JHS

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| JHS 1 | 6 | 67 | 73 | 8 |
| JHS 2 | 21 | 39 | 60 | 35 |
| JHS 3 | 4 | 45 | 49 | 8 |
| Total | 31 | 151 | 182 | 17 |

B15 Tarkwa Banso Primary School

| Class | Native | Migrant | Total | Native percentage |
|--------------|------------|-----------|------------|----------------------|
| P1 | 33 | 8 | 41 | 81 |
| P2 | 28 | 5 | 33 | 85 |
| P3 | 29 | 6 | 35 | 83 |
| P4 | 29 | 4 | 33 | 88 |
| P5 | 21 | 3 | 24 | 88 |
| P6 | 19 | 5 | 24 | 79 |
| Total | 159 | 31 | 190 | 83 |

B16. Awudua Catholic Primary School

| Class | Native | Migrant | Total | Native percentage |
|--------------|------------|-----------|------------|----------------------|
| P 1 | 28 | 6 | 50 | 88 |
| P2 | 16 | 3 | 35 | 91 |
| P3 | 19 | 4 | 31 | 87 |
| P4 | 20 | 2 | 34 | 94 |
| P5 | 17 | 1 | 21 | 95 |
| P6 | 17 | 3 | 25 | 88 |
| Total | 117 | 19 | 196 | 90 |

B17. Awudua Methodist Primary School

| Class | Native | Migrant | Total | Native percentage |
|--------------|------------|-----------|------------|----------------------|
| P 1 | 28 | 9 | 37 | 76 |
| P2 | 16 | 7 | 23 | 70 |
| P3 | 19 | 2 | 21 | 91 |
| P4 | 20 | 5 | 25 | 80 |
| P5 | 17 | 8 | 25 | 68 |
| P6 | 17 | 6 | 23 | 74 |
| Total | 117 | 37 | 154 | 76 |

B18. Huniso Methodist Primary School

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| P 1 | 6 | 39 | 45 | 13 |
| P2 | 26 | 32 | 58 | 45 |
| P3 | 13 | 21 | 34 | 38 |
| P4 | 11 | 32 | 43 | 26 |
| P5 | 6 | 21 | 27 | 22 |
| P6 | 12 | 14 | 46 | 26 |
| Total | 74 | 159 | 233 | 32 |

B19. Richard Graeme School Complex

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|------------|------------|----------------------|
| P 1 | 5 | 45 | 50 | 10 |
| P2 | 2 | 45 | 47 | 4 |
| P3 | 5 | 42 | 47 | 11 |
| P4 | 2 | 41 | 43 | 5 |
| P5 | 4 | 31 | 35 | 11 |
| P6 | 4 | 26 | 13 | 30 |
| Total | 22 | 230 | 252 | 9 |

B20. Awudua Methodist JSS

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|-----------|-----------|----------------------|
| JSS 1 | 31 | 6 | 31 | 81 |
| JSS 2 | 26 | 6 | 26 | 77 |
| JSS 3 | 19 | 4 | 19 | 79 |
| Total | 60 | 16 | 76 | 79 |

B21. Richard Graeme School Complex

| Class | Native | Migrant | Total | Native percentage |
|--------------|----------|-----------|-----------|----------------------|
| JSS 1 | 1 | 27 | 28 | 4 |
| JSS 2 | 2 | 28 | 30 | 7 |
| JSS 3 | 0 | 0 | 0 | 0 |
| Total | 3 | 55 | 58 | 5 |

B22. Tarkwa Bansa JSS

| Class | Native | Migrant | Total | Native percentage |
|--------------|-----------|----------|-----------|----------------------|
| JSS 1 | 17 | 3 | 20 | 86 |
| JSS 2 | 15 | 1 | 16 | 94 |
| JSS 3 | 13 | 5 | 18 | 72 |
| Total | 45 | 9 | 54 | 83 |

B23. Huniso D/A JSS

| Class | Native | Migrant | Total | Native percentage |
|-------|--------|---------|-------|----------------------|
| JSS 1 | 11 | 11 | 22 | 60 |
| JSS 2 | 7 | 12 | 19 | 37 |
| JSS 3 | 3 | 7 | 10 | 30 |
| Total | 21 | 30 | 51 | 41 |

B24. Tarkwa Secondary School

| Class | Native | Migrant | Total | Native percentage |
|-------|--------|---------|-------|----------------------|
| SSS 1 | 76 | 337 | 413 | |
| SSS 2 | 91 | 394 | 485 | |
| SSS 3 | 0 | 0 | 0 | |
| Total | 167 | 133 | 898 | |

B25. Fiaseman Senior Secondary School

| Class | Native | Migrant | Total | Native percentage |
|--------------|------------|------------|-------------|----------------------|
| JSS 1 | 103 | 275 | 378 | |
| JSS 2 | 80 | 374 | 454 | |
| JSS 3 | 97 | 209 | 306 | |
| Total | 280 | 858 | 1138 | |

APPENDIX C
QUESTIONNAIRE FOR OFFICIALS OF
GHANA EDUCATION SERVICE DISTRICT OFFICE,
TARKWA

Introduction

It would be very much appreciated if you could complete this questionnaire on the above topic as honestly as possible. Any information provided would be handled in confidence and would not in any way be intended for any purpose other than academic

1. General information

i. Your Job Title

Assistant Director – Statistics Assistant Director – Personnel
Finance Office Other (Please specify)

2. How many Senior Secondary Schools are in Wassawest District?

i. List them

.....
.....

ii. How many Public Junior Secondary Schools are in Wassawest District?

3. Have Mining Companies setup any Basic Schools in Tarkwa and the vicinity? Yes No

If **yes** list them under **Name** and **Location** e.g.

| Name | Location |
|-----------------------------|-----------------|
| Ghana Manganese Company Ltd | Nsuta |
| | |
| | |
| | |
| | |

4. Are there any records of sponsorship packages by the mining companies for Basic school pupils in your office Yes No

i. If Yes, tick x against the sponsoring company

1. A M S 2. B G L 3. Sandvik

4. LIEBHERR 5. Gold Star (Wassa) Mines

5. Other specify

5. Are there private Primary Schools in Tarkwa and the vicinity?

Yes No

i. If **yes** list them under **Name** and **Location**

List of Private Primary Schools

| Name | Location |
|-------------|-----------------|
| | |
| | |
| | |

6. Are there private Junior Secondary Schools within Tarkwa and the vicinity? Yes No

i. If **yes** list them under **Name** and **Location**

List of Private Junior Secondary Schools

| Name | Location |
|-------------|-----------------|
| | |
| | |
| | |

7. Suggest names of some primary schools and Junior Secondary schools with large enrolments in Tarkwa town.

.....
.....

8. Suggest names of some Primary and Junior Secondary schools with large enrolments in Awudua and the surrounding areas.

.....
.....

Officer:

Signature:

APPENDIX D
QUESTIONNAIRE FOR GALAMSEY OPERATORS IN
TARKWA

Introduction

It would be very much appreciated if you could complete this questionnaire on the above topic as honestly as possible. Any information provided would be handled in confidence and would not in any way be intended for any purpose other than academic.

1.0. Tick **ww** if you are from Wassa West District and **mm** if you are an immigrant. ww mm

2. What is your age?

3. Have you ever been to school? Yes No

Other (Specify)

3.1. If yes what level did you stop? (*Tick x in the box provided*)

Primary Middle/JSS Secondary Tertiary

3.2. Why did you stop at that level?

Financial constraints Knowledge limitation No interest

4. How much do you earn a day on the average? If it is within these ranges underline the range.

GH¢1 to GH¢5

GH¢5 to GH ¢10

GH¢10 to GH¢15

GH¢15 to GH¢20

GH¢20 to GH ¢25

GH¢25 to GH¢30

GH¢30 to GH¢50

Above GH¢50

5. Should you be sponsored for education, can you stop this job?

Yes No

6. Is there any other source of income for you?

Yes No

7. If yes what job?

Farming Trading Commercial driving

Others (specify)

8. If respondent is a student/pupil;

i. Who finances your education?

Father Mother Uncle Other

(specify)

ii. Do your parents/Financiers know that you combine galamsey with your schoolings?

Yes No

iii. Do your teachers know that you combine galamsey with your schoolings?

Yes

No

iv. What job would you like to do after schooling?

Respondent's signature/thumb print:

APPENDIX E

PLATES

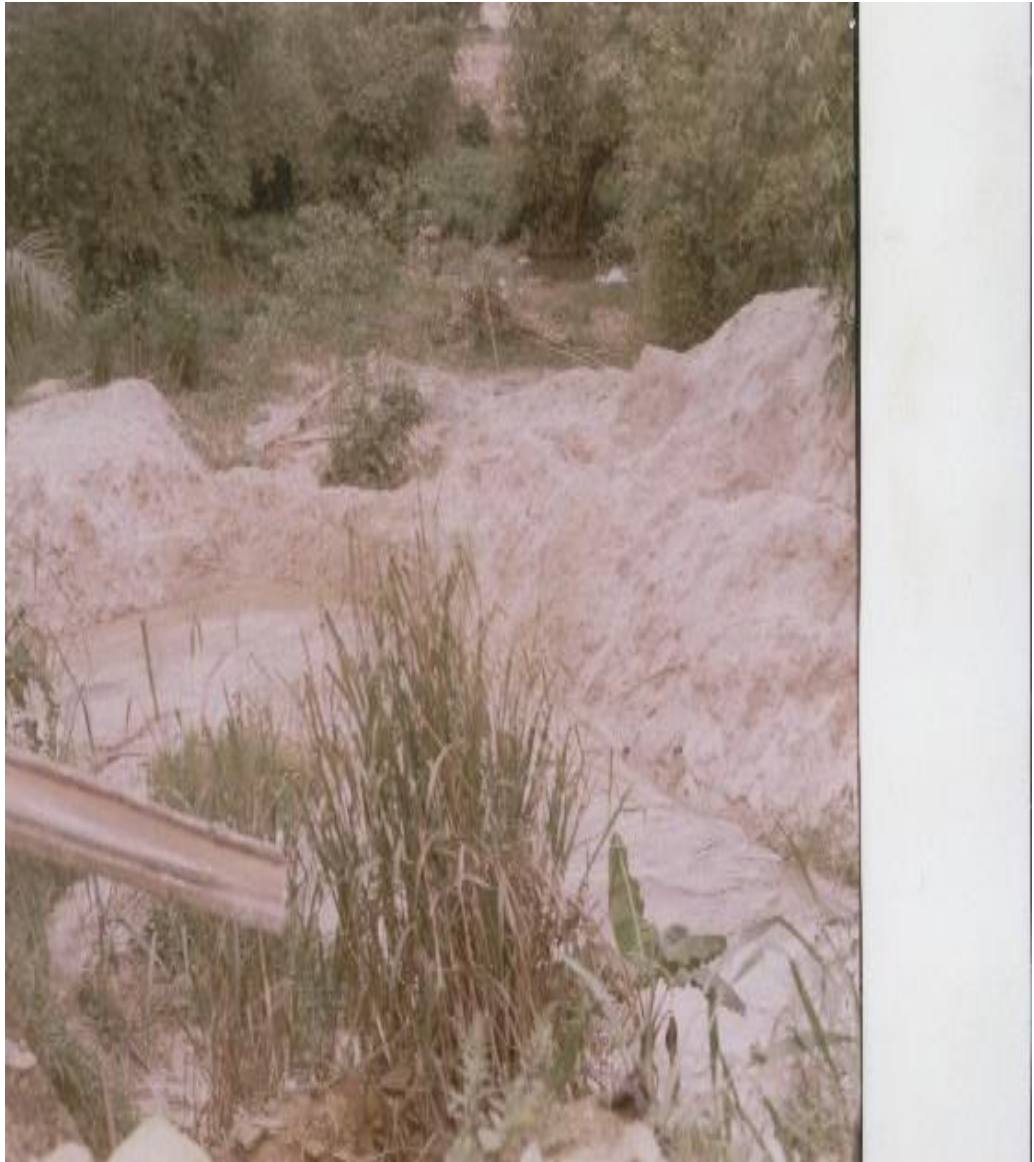


Plate 4: Landscape after galamsey activities

Source: Field survey (2006)

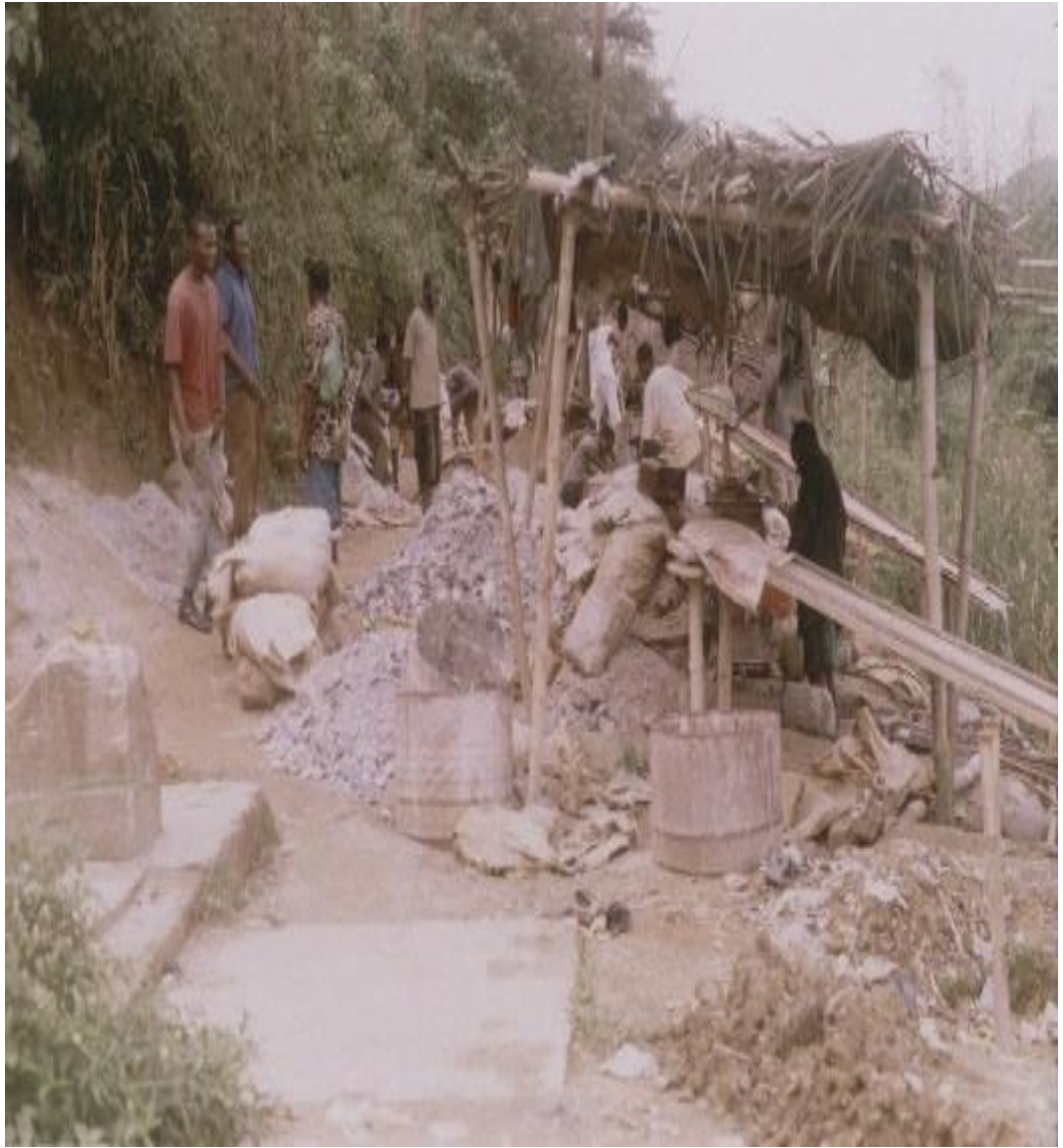


Plate 5: Galamsey workers at site

Source: Field survey (2006)



Plate 6: Awudua Methodist Junior Secondary School – Goldfields Ghana Ltd.

Source: Field survey (2006)



Plate 7: Huniso Early Childhood Development Centre (Primary School) – Constructed by Goldfields Ghana Ltd

Source: Field survey (2006)



Plate 8: Sign board

Source: Field survey (2006)



Plate 9: Sign board

Source: Field survey (2006)



Plate 10: Lavatory, Abekoase at Tebe Early Childhood Development Centre

Source: Field survey (2006)



Plate 11: Urinal, Abekoase and Tebe Early Childhood Development Centre

Source: Field survey (2006)

APPENDIX F

WESTERN UNIVERSITY COLLEGE, TARKWA

EMPLOYMENT OPPORTUNITY

The Western University College, has vacancies for young, energetic hardworking citizens to work in various faculties, departments and sections in the College as:

(A) Messengers

Qualification

Applicants must possess the GCE Ordinary Level certificates or the Senior Secondary. School certificate or its equivalent with at least a credit in English Language.

(B) Campus Guard Grade II

Qualification

Applicants must possess School Certificate/GCE Ordinary Level with credits in 3

Subjects including English Language or its equivalent

Or

Must have attained the rank of Constable in the Police Service or equivalent status in the Armed forces

Mode of application

Interested applicants should send their applications and photocopies of their Certificate(s) to

The College Registrar
Western University College
P. O. Box 237
Tarkwa

Or call personally at the same address with a written application and
photocopies of
Certificates for forms

Closing date – Friday, 27th June 2003